

Declaration of conformity for generator units in accordance with VDE-AR-N 4105 G.2, series Powador 3200 - 6600

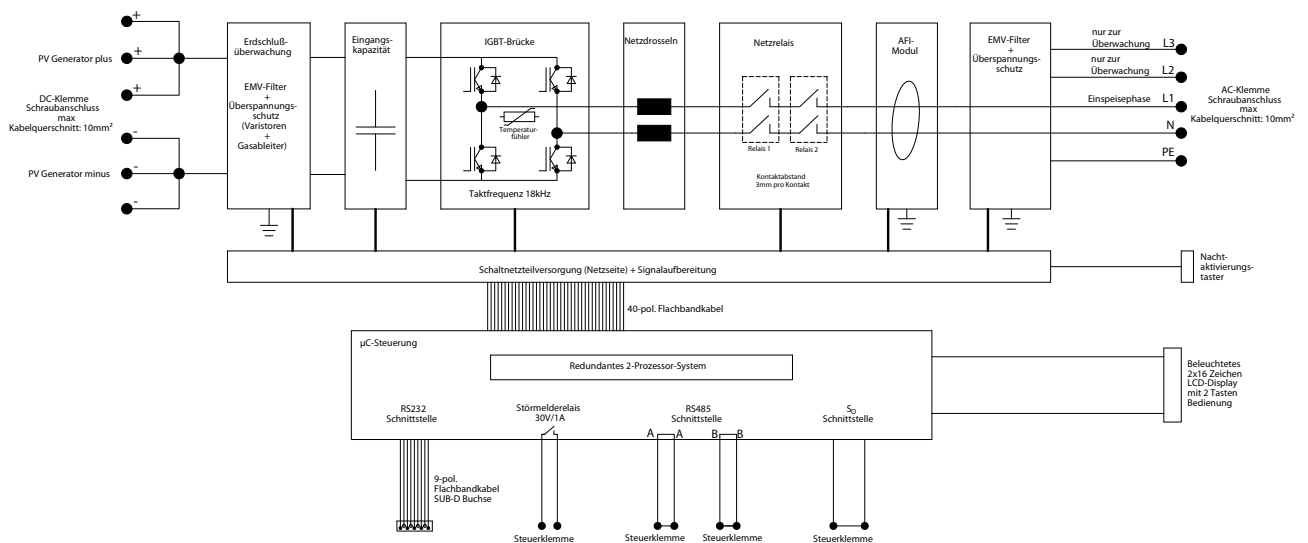
Declaration of conformity for generator unit		2013 - 0214
Name and address of the manufacturer:	KACO new energy GmbH Carl-Zeiss-Str. 1 74172 Neckarsulm, Germany	
Product description	Photovoltaic feed-in inverter	
Type designation	Powador 3200 / 4400 / 5300 / 5500 / 6600	
Software version from	ARM: V4.70 / DSP: V4.70	
VDE Code of Practice	VDE-AR-N 4105 "Generators connected to the low-voltage distribution network" Minimum technical requirements for connection and parallel operation of generators in the low-voltage distribution network, version 2011-08	

The above generator units meet the requirements of the Directive VDE-AR-N 4105, version 2011-08.

Setting values and shutdown times of overfrequency protection:

Inverter type	max. active power $P_{E_{max}}$	max. reactive power $S_{E_{max}}$	Nominal voltage	Threshold value/ shutdown time overfrequency protection
Powador 3200	2.7 kW	2.7 kVA	230 V	51.5 Hz / 0.2 s
Powador 4400	3.7 kW	3.7 kVA	230 V	51.5 Hz / 0.2 s
Powador 5300	4.4 kW	4.4 kVA	230 V	51.5 Hz / 0.2 s
Powador 5500	4.6 kW	4.6 kVA	230 V	51.5 Hz / 0.2 s
Powador 6600	5.6 kW	5.6 kVA	230 V	51.5 Hz / 0.2 s

Schematic structure of generator unit:



Declaration of conformity for grid and system protection in accordance with VDE-AR-N 4105 G.3, series Powador 3200 - 6600

Declaration of conformity for grid and system protection		2013 - 0214
Manufacturer's name and address	KACO new energy GmbH Carl-Zeiss-Str. 1 74172 Neckarsulm, Germany	
Type designation	Internal grid and system protection	
Assigned to GU of the models	Powador 3200 / 4400 / 5300 / 5300 supreme / 5500 / 6600	
Software version from	ARM: V4.70 / DSP: V4.70	
VDE Code of Practice	VDE-AR-N 4105 "Generators connected to the low-voltage distribution network" Minimum technical requirements for connection and parallel operation of generators in the low-voltage distribution network, version 2011-08	

The above grid and system protection meets the requirements of VDE AR-N 4105, Version 2011-08.

Setting values and response times of protective functions:

Function	Setting values	Response times
Voltage increase protector $U \gg$	$1.15 U_n$	100 ms
Voltage increase protector $U >$	$1.1 U_n$	100 ms
Voltage drop protector $U <$	$0.80 U_n$	100 ms
Frequency increase protector $f >$	51.5 Hz	100 ms
Frequency drop protector $f <$	47.5 Hz	100 ms
Islanding detection	---	< 5 s

Schematic structure of generator unit:

